



COMMONWEALTH OF MASSACHUSETTS  
EXECUTIVE OFFICE OF ENVIRONMENTAL AFFAIRS  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
Metropolitan Boston – Northeast Regional Office

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Governor

KERRY HEALEY  
Lieutenant Governor

ELLEN ROY HERZFELDER  
Secretary

EDWARD P. KUNCE  
Acting Commissioner

**MODIFIED WATER WITHDRAWAL PERMIT**  
**MGL c 21G**

This Modified Permit is issued pursuant to the Massachusetts Water Management Act (“the Act”) for the sole purpose of modifying the terms and conditions governing the withdrawal of water authorized herein. This Modified Permit conveys no right in or to any property beyond the right to withdraw the volume of water for which it is issued.

**PERMIT NUMBER:** 9P-3-17-119.01

**RIVER BASIN:** Ipswich

**PERMITTEE:** Town of Hamilton  
P.O. Box 429  
Hamilton, MA 01936

**ORIGINAL ISSUANCE DATE:** February 15, 1991

**MODIFICATION DATE:** May 19, 2003

**EXPIRATION DATE:** August 31, 2009

**NUMBER OF WITHDRAWAL POINTS:**

Groundwater: 6  
Surface Water: 0

**USE:** Public Water Supply

**DAYS OF OPERATION:** 365

**LOCATION(S):**

<u>Source</u>	<u>Source Code</u>	<u>Latitude</u>	<u>Longitude</u>	<u>Location</u>
School St. Well	3119000-02G			School Street
Patton Well	3119000-03G			Asbury Street
Caisson Wells	3119000-04G			Pine Tree Drive
Idlewood Wells #1	3119000-05G			Pine Tree Drive
Idlewood Well #2	3119000-06G			Pine Tree Drive
Idlewood Well #3 (Plateau Well)	not yet assigned			Pine Tree Drive

**SPECIAL CONDITIONS**

This information is available in alternate format by calling our ADA Coordinator at (617) 574-6872.

205A Lowell St. Wilmington, MA 01887 • Phone (978) 661-7600 • Fax (978) 661-7615 • TTD# (978) 661-7679



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**1. Maximum Authorized Annual Average Withdrawal Volume**

This Modified Permit authorizes the withdrawal of water for the purpose of serving the residences, schools, businesses, municipal facilities, and institutions in the Town of Hamilton, at the rate described below on average over a calendar year. The volume reflected by this rate is in addition to the 0.92 million gallons per day (MGD) previously registered to the permittee through the Water Management Act Program. The Department of Environmental Protection (the Department) will use raw water volumes to assess compliance with the volumes authorized by the Town's registration and this Modified Permit.

The permitted volume is expressed in millions of gallons, both as an average daily withdrawal rate per year, and as a total annual withdrawal volume for each period of the term of this Modified Permit.

Withdrawals are authorized as follows:

			<u>Daily Average (MGD)</u>	<u>Total Annual (MGY)</u>
Period One				
Years 2-5	2/15/1991	to 8/31/1994	0.22	80.30
Period Two				
Years 6-10	9/1/1994	to 5/6/1997	0.22 *	80.30
	5/7/1997	to 8/31/1999	0.11	40.15
Period Three				
Years 11-14	9/1/1999	to 5/18/2003	0.19	69.35
Period Four				
Years 15-20	5/19/2003	to 8/31/2009	0.11	40.15

\* Because actual withdrawal volumes have been significantly below allocated amounts and there is insufficient water available in the Ipswich River Basin to support increased withdrawals, the Department held Hamilton's permitted withdrawal volumes to the volume originally allocated for Period One. Authorized withdrawal volumes have been reduced to reflect the 0.11 MGD agreed upon in the allocation transfer between Hamilton and Wenham signed by the parties on April 14, 1997.

If, for any year beginning with calendar year 2004, the Town exceeds its total authorized withdrawal volume of 1.03 MGD on an average annual daily basis, then on or before March 1<sup>st</sup> of the following year, the Town shall submit to the Department for its review and approval a plan and schedule for implementing a water bank. The Town thereafter shall implement the plan and schedule as approved by the Department.

At a minimum, this water bank shall provide for keeping at least two gallons of water within the basin for every gallon of water demand added to the system. The water bank requirement applies even if the Town exceeds its total authorized volume on an average annual daily basis by an amount that is less than the threshold volume. If the amount by which the Town exceeds its total

authorized volume on an average annual daily basis is more than the threshold volume, the Town will be in violation of the Water Management Act and this Modified Permit.

**2. Maximum Authorized Daily Withdrawal Volume**

Withdrawals from individual withdrawal points are not to exceed the approved maximum daily volume listed below without specific advance written approval from the Department.

Source	Source Code	Daily Rate (MGD)
School St. Well	3119000-02G	0.19
Patton Well	3119000-03G	0.29
Caisson Wells	3119000-04G	0.72 *
Idlewood Wells #1	3119000-05G	0.72 *
Idlewood Well #2	3119000-06G	0.58 *
Idlewood Well #3 (Plateau Well)	not yet assigned	0.52 *

\* Combined withdrawals from these sources shall not exceed a maximum daily withdrawal rate of 1.30 MGD and an annual averaged daily withdrawal rate of 0.88 MGD.

**3. Zone of Contribution (Zone II or Zone III) Delineations**

Department records show that all the wells listed in this permit have DEP-approved Zone II delineations. Therefore, no further Zone II work is required as a condition of this Modified Permit.

**4. Wellhead Protection**

Department records indicate that the Town of Hamilton meets the requirements of 310 CMR 22.21(2) for all the wells listed in this Modified Permit.

**5. Streamflow Triggers and Outside Water Use Restrictions**

Beginning on June 1, 2003, the Town shall implement the Required Actions identified in the following table whenever streamflow falls below the levels identified for three consecutive days as measured at the U.S. Geological Survey (USGS) streamflow gauge noted.

Period	Streamflow Trigger (3 consecutive days)	Flow Volume (USGS Ipswich Gauging)	Required Action
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	below threshold)	Station #01102000) *	
May 1st – September 30th	< 0.56 cfsm	< 70.0 cfs	Public Notice for Voluntary Water Restrictions
May 1st – September 30th	< 0.42 cfsm	< 52.5 cfs	Implementation of Mandatory Water Restrictions

cfsm = cubic feet per second per square mile

cfs = cubic feet per second

\* The streamflow thresholds set forth above are the mean daily streamflows recorded at the applicable USGS gauge. Should the reliability of flow measurements at the Ipswich River at Ipswich gauging station be so impaired as to question its accuracy, then the Modified Permit holder may request for the Department's review and approval, that the trigger mechanism be transferred to the USGS Ipswich River at South Middleton gauge, #01101500. The implementation of restrictions will be triggered by the same cfsm values, which translate to a flow of 24.9 cfs for voluntary restrictions, and 18.7 cfs for mandatory restrictions. Should the Department become aware of concerns about the reliability of either gauge, it may upon immediate notification to the Modified Permit holder transfer the measurement point to an alternate gauge. The Department reserves the right to require use of a different gauge.

Required Actions, whether voluntary or mandatory restrictions, require the filing of a public notice in a local newspaper within 5 business days of the date that the required action is triggered.

A copy of each notice as published shall be forwarded to the Department within 10 business days of publication. Each notice shall at a minimum include:

1. the streamflow value triggering the required notification;
2. the need to limit water use, especially nonessential outside water use, to protect streamflow for aquatic life and to ensure a sustainable drinking water supply;
3. ways individual homeowners can limit water use, especially nonessential outside water use;
4. in the case of mandatory restrictions, a detailed description of the restrictions and the penalties for violating the restrictions.

At a minimum, the mandatory restrictions shall limit nonessential outside water use to hand held hoses only and include hourly restrictions on nonessential outside water use. At a minimum, hourly restrictions shall avoid water use during the hours 9 AM – 5 PM when evapotranspiration rates are typically the highest. Notwithstanding the foregoing, irrigation of public parks and recreational fields by means of automatic sprinklers equipped with moisture sensors or similar control technology may also be permitted outside of the hours 9AM – 5 PM. For the purpose of this Modified Permit, the term “nonessential outside water use” is defined to include those uses that do not have health or safety impacts, are not required by regulation, and are not needed to meet the core functions of a business or other organization. The Town shall have the authority to enforce mandatory restrictions, including the authority to assess penalties or impose fines for violations.

The Town shall implement and, in the case of mandatory restrictions, enforce the restrictions until streamflow exceeds for seven consecutive days the applicable streamflow threshold set forth in the table above.

In order to evaluate the effectiveness of the restrictions on nonessential outside water use, the Department requires that the Town submit, along with the Annual Statistical Report, a report documenting all actions taken by the Town to implement and enforce the restrictions on nonessential outside water use, including without limitation the dates the restrictions on nonessential outside water use were in place, the streamflow threshold that triggered the restrictions, the restrictions imposed, and the Town's efforts to enforce the restrictions, including the names and addresses of those against whom action was taken and any fines or penalties imposed.

**6. Ipswich River Basin Performance Standards**

Beginning with calendar year 2004, Hamilton shall meet the following performance standards:

**Performance Standard for Unaccounted for Water**

Unaccounted for water shall not exceed 10% of overall water use.

Hamilton's Annual Statistical Report shall provide a detailed assessment of its unaccounted for water. Unaccounted for water is defined by the Massachusetts Water Resources Commission as the difference between water pumped or purchased and water that is metered or confidently estimated. Unaccounted for water shall include water that cannot be accounted for due to meter problems, unauthorized hydrant openings, unavoidable leakage, recoverable leakage, illegal connections, standpipe overflows, and fire protection.

The need for water main flushing and the use of water in construction or meter calibration shall be metered or estimated as appropriate to assist in determining actual demand. Volumes flushed to waste shall be reported annually on the Town's Annual Statistical Report.

**Performance Standard for Residential Per Capita Water Use**

Residential Per Capita Water Use shall not exceed 65 gallons per day.

Hamilton shall report its residential gallons per capita per day and the calculation used to derive that figure as part of its Annual Statistical Report. The residential gallons per capita per day is the total volume of residential water use in gallons divided by the population served. The source of the data used to establish the service population, and the year in which this data was developed, shall be provided. If Hamilton fails to meet the performance standard for keeping residential per capita water use at or below 65 gallons per day, the Department may require the Town to implement restrictions on nonessential outside water use that are more stringent than the restrictions set forth in Special Condition #5.

**Performance Standard for Seasonal Water Use**

Water use between May 1<sup>st</sup> and September 30<sup>th</sup> shall not exceed the seasonal cap of 107.10 million gallons. To stay within this cap, Hamilton shall keep its water use at or below an average daily volume of 0.70 MGD from May 1<sup>st</sup> through September 30<sup>th</sup>. If the Town exceeds this seasonal cap, the Department may require the Town to implement more stringent restrictions on nonessential outside water use than those set forth in Special Condition #5.

**Performance Standard for Restricting the Use of Unregulated Irrigation Wells**

The Department has been informed that within the Ipswich River Basin there has been an increase in the number of wells that are not subject to regulation under the Water Management Act and are used in whole or in part for irrigation purposes (hereinafter "unregulated irrigation wells"). To avoid a further increase in the number of such wells, the Department determined that because of the stressed nature of the Ipswich River, it is appropriate that the communities located in the Ipswich River Basin make the use of unregulated irrigation wells subject to the restrictions on

nonessential outside water use that are triggered by streamflow thresholds, that are required by this Modified Permit and that apply to customers of the public water system.

The Department requires that the Town submit, with the Annual Statistical Report, a report documenting all actions taken by the Town to make unregulated irrigation wells subject to the restrictions on nonessential outside water use triggered by streamflow thresholds that are required by this Modified Permit, and that apply to customers of the public water system, including any actions taken to enforce these restrictions against the owners or operators of unregulated irrigation wells and any fines or penalties imposed. If, in any calendar year beginning 2005, Hamilton, on or before May 1<sup>st</sup> of that year, fails to restrict the use of unregulated irrigation wells as provided herein, the Town shall implement and enforce the restrictions on nonessential outside water use triggered by the streamflow thresholds set forth below in place of the streamflow thresholds set forth in Special Condition #5.

Period	Streamflow Trigger (3 consecutive days below threshold)	Flow Volume (USGS Ipswich Gauging Station #01102000) *	Required Action
May 1st – September 30th	< 0.56 cfs	< 70.0 cfs	Public Notice for Voluntary Water Restrictions
May 1st – September 30th	< 0.42 cfs	< 52.5 cfs	Implementation of a Total Ban on Nonessential Outside Water Use

cfs = cubic feet per second per square mile

cfs = cubic feet per second

## 7. **Enhanced Water Conservation Plan**

If, in any year beginning with calendar year 2004, Hamilton fails to comply with the Performance Standards for Residential Per Capita Water Use and/or Seasonal Water Use, the Town shall develop and implement an enhanced water conservation plan for the following calendar year. For any year in which the Town is required to develop and implement an enhanced water conservation plan, the Town shall submit, along with the Annual Statistical Report, a report documenting all actions taken by the Town to develop and implement the enhanced water conservation plan.

The enhanced water conservation plan may include, but is not limited to, the items listed below:

- Adoption and enforcement of a bylaw or other regulation to require moisture sensors or similar control technology on automatic sprinklers
- Adoption and enforcement of a bylaw or other regulation to limit the amount of land clearing for the creation of lawns
- Adoption and enforcement of a bylaw or other regulation to promote infiltration of stormwater to recharge groundwater at a rate 1.5 times the volume of recharge for new development projects and a rate of 1.0 times the volume of recharge for redevelopment projects for the appropriate hydrologic group, as identified in Standard 3 of the DEP Stormwater Management Standards
- Irrigation of recreational fields and parks in accordance with the Water Resources Commission's May 2002 *Guide to Lawn and Landscape Water Conservation*
- Encouragement of the use of cisterns or rain barrels for outside watering thru the use of a rebate or at-cost program
- Enhanced public education outreach

- Purchase and/or development of out-of-basin sources

At a minimum, the enhanced water conservation plan shall meet the requirements set forth below.

- If Hamilton fails to comply with the performance standard for keeping residential per capita water use at or below 65 gallons per day, the enhanced water conservation plan shall include the implementation of a program to make water saving devices such as faucet aerators, low flow shower heads, and toilet displacement bottles/dams available to its customers at cost and to provide rebates or other incentives for the purchase of low flow appliances (washing machines, dishwashers, and toilets) and the installation of moisture sensors or similar control technology on irrigation systems.
- Any enhanced water conservation plan required by this Modified Permit shall include (1) submission of a report that evaluates the effectiveness of an increasing block rate or a seasonal rate as a tool for encouraging water conservation; (2) implementation of any changes to the current rate structure that will enable the Town to encourage water conservation; and (3) notification to the Department of the changes along with the reason for these changes.

## **8. Control of Unaccounted for Water**

At a minimum, the Town shall take the actions listed below to meet the performance standard for keeping unaccounted for water at or below 10%.

### **Metering**

- o The Hamilton Water Department reports that there are a few homes in its water distribution system that remain unmetered because it cannot achieve access, and that meter pits will be installed at these homes. By December 31, 2004, the Town shall complete 100% metering by installing service meters at these homes, in meter pits if necessary.
- o The Town shall continue its ongoing program to inspect individual service meters to ensure that all service meters accurately measure the volume of water used by the Town's customers to within 2%. Such plan shall continue to include provision for, and scheduling of, placing sufficient funds in the annual water department budget to recalibrate, repair, or replace meters as necessary.
- o The Town shall continue to calibrate all master meters on an annual basis.

### **Leak Detection**

- o Continue to conduct a full leak detection survey at least every three years. In addition, a leak detection survey of the entire distribution system shall be performed whenever unaccounted for water in Hamilton exceeds 10% of overall water use, or the Town's percentage of unaccounted for water increases by 5% or more (for example, an increase from 2% to 8%) over the percentage reported on the Town's Annual Statistical Report for the prior calendar year. On or before December 31 of any calendar year in which a leak detection survey takes place, the Town shall submit to the Department for its review a report detailing the leak detection survey, any leaks uncovered as a result of the survey or otherwise, and the estimated water savings as a result of the repair.

#### Leak Repair

- o Leak repair reports shall be available for inspection by the Department.
- o Leaks are to be fixed as soon as possible, including leaks in any water pipes up to the service meter. In no event shall any leak remain unrepaired more than seven (7) days after detection.

### **9. Requirement to Report Raw and Finished Water Volumes**

Hamilton shall report on the Annual Statistical Report both the raw and finished water volumes for the entire water system. For individual water sources in the water system, raw water volumes shall be reported.

### **10. Large Water User Conservation Program**

The Town shall implement a program to reduce water use by its five (5) largest customers. On or before March 1, 2005, the Town shall report on the effectiveness of this program. Upon receipt of this report, the Department will take whatever action it deems appropriate to promote the interests of the Water Management Act, including without limitation requiring the Town to take additional actions to reduce commercial and industrial water use.

### **11. General Conservation Requirements**

#### Pricing

- o Continue to ensure that water supply system operations are fully funded by water supply system revenues. The pricing system should reflect the full cost of supplying water, including but not limited to:
  - administrative costs
  - staff salaries, benefits, insurance and pension costs
  - distribution system operation, maintenance and repair, including leak detection and repair costs and metering costs
  - pumping costs and utilities
  - treatment costs
  - capital replacement costs, capital depreciation and debt service
  - costs incurred for water conservation programs and public education programs
  - watershed or wellhead purchase and/or protection costs and land acquisition
  - emergency planning

#### Plumbing

- o The Town shall enforce the March 1, 1989 plumbing code for new construction and building rehabilitation requiring installation of water saving devices and low flow toilets.



- o The Town has informed the Department that all municipal public buildings have been retrofitted with water saving devices. Some Hamilton-Wenham Regional School District buildings may not yet have been retrofitted.

#### Education

- o Hamilton shall continue an ongoing education program which includes: public service announcements, speakers for community groups, conservation information center, and public space advertising (including Town Hall exhibits). The public education program shall emphasize:
  - all the costs of providing water
  - that investments in efficiency and conservation will provide consumers with long-term savings
  - how water use fluctuates seasonally throughout the year
  - the environmental benefits of conserving water
- o Bill stuffers with water conservation tips or water saving messages shall be included at least annually with customer's water bills, or as a separate mailing. Copies of this information sent shall be available to the Department upon request.

### **GENERAL CONDITIONS**

1. **Duty to Comply** The permittee shall comply at all times with the terms and conditions of this Modified Permit, the Act and all applicable State and Federal statutes and regulations.
2. **Operation and Maintenance** The permittee shall at all times properly operate and maintain all facilities and equipment installed or used to withdraw up to the authorized volume so as not to impair the purposes and interests of the Act.
3. **Entry and Inspections** The permittee or the permittee's agent shall allow personnel or authorized agents or employees of the Department to enter and examine any property for the purpose of determining compliance with this Modified Permit, the Act or the regulations published pursuant thereto, upon presentation of proper identification and an oral statement of purpose.
4. **Water Emergency** Withdrawal volumes authorized by this Modified Permit are subject to restriction in any water emergency declared by the Department pursuant to MGL c 21G ss 15-17, MGL c 150 ss 111, or any other enabling authority.
5. **Transfer of Permits** This Modified Permit shall not be transferred in whole or in part unless and until the Department approves such transfer in writing, pursuant to a transfer application on forms provided by the Department requesting such approval and received by the Department at least thirty (30) days before the effective date of the proposed transfer. No transfer application shall be deemed filed unless it is accompanied by the applicable transfer fee established by 310 CMR 36.37.

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6. **Duty to Report** The permittee shall submit annually, on a form provided by the Department (the Annual Statistical Report), a certified statement of the withdrawal, such report to be received by the Department by February 28<sup>th</sup> of each year. Such report must be mailed or hand delivered to:

Department of Environmental Protection  
Water Management Program  
One Winter Street, 6th Floor  
Boston, MA 02108

7. **Duty to Maintain Records** The permittee shall be responsible for maintaining monthly withdrawal records.
8. **Metering** All withdrawal points included within the Modified Permit shall be metered. Meters shall be calibrated annually.

### **APPEAL RIGHTS AND TIME LIMITS**

This permit modification is a decision of the Department. Any person aggrieved by this decision may request an adjudicatory hearing under the provisions of M.G.L. c. 30A. Any such request must be made in writing, by certified mail and received by the Department within twenty-one (21) days of the date of receipt of this Modified Permit. Only the portions of this Modified Permit that reflect a modification of Hamilton's current permit may be the subject of an appeal, as the period for appealing provisions within Hamilton's current permit has expired.

No request for an appeal of this Modified Permit shall be validly filed unless a copy of the request is sent by certified mail, or delivered by hand to the local water resources management official in the city or town in which the withdrawal point is located; and for any person appealing this decision, who is not the permit holder, unless such person notifies the permit holder of the appeal in writing by certified mail or by hand within five (5) days of mailing the appeal to the Department.

### **CONTENTS OF HEARING REQUEST**

310 CMR 1.01(6)(b) requires the request to include a clear and concise statement of the facts which are the grounds for the request and the relief sought. For a person who is not the permit holder, the request must include a clear and concise statement of how that person is aggrieved by the issuance of this Modified Permit.

### **FILING FEE AND ADDRESS**

The hearing request, together with a valid check, payable to the Commonwealth of Massachusetts in the amount of \$100 must be mailed to:

Commonwealth of Massachusetts  
Department of Environmental Protection  
P.O. Box 4062  
Boston, MA 02211

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The request shall be dismissed if the filing fee is not paid, unless the appellant is exempt or granted a waiver as described below.

### **EXEMPTIONS**

The filing fee is not required if the appellant is a city or town (or municipal agency), county, district of the Commonwealth of Massachusetts, or a municipal housing authority.

### **WAIVER**

The Department may waive the adjudicatory hearing filing fee for any person who demonstrates to the satisfaction of the Department that the fee will create an undue financial hardship. A person, seeking a waiver must file, together with the hearing request, an affidavit setting forth the facts which support the claim of undue hardship.

**NO WITHDRAWAL AUTHORIZED HEREIN SHALL EXCEED THE SAFE YIELD OF THE BASIN AS DETERMINED BY THE DEPARTMENT.**

**NO WITHDRAWAL IN EXCESS OF 100,000 GALLONS PER DAY OVER THE REGISTERED VOLUME (if any) SHALL BE MADE FOLLOWING THE EXPIRATION OF THIS PERMIT, UNLESS BEFORE THAT DATE THE DEPARTMENT HAS RECEIVED A RENEWAL PERMIT APPLICATION PURSUANT TO 310 CMR 36.00.**